

Statement of Basis
Automotive Coating Operations General Permit

**Permit to Construct P-2019.0029
Project No. 62248**

**Coachman Automotive, Inc. – dba Fix Auto Post Falls
Post Falls, Idaho**

Facility ID No. 055-00127

Proposed for Public Comment

**July 5, 2019
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Permit Writer**



The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AQCR	Air Quality Control Region
Btu	British thermal units
CAS No.	Chemical Abstracts Service registry number
CE	Control Efficiency
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
gal/day	gallons per calendar day
gal/hr	gallons per hour
gal/yr	gallons per consecutive 12 calendar month period
gr	grain (1 lb = 7,000 grains)
HAP	hazardous air pollutants
hr/yr	hours per year
HVLP	high volume, low pressure (applies to paint guns)
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/gal	pounds per gallon
lb/hr	pounds per hour
LPG	Liquefied Petroleum Gas
MMBtu	million British thermal units
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PC	permit condition
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PTC	permit to construct
PTE	potential to emit
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SDS	Safety Data Sheet
SIC	Standard Industrial Classification
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/yr	tons per consecutive 12-calendar month period
T2	Tier II operating permit
TAP	toxic air pollutants
TE	Transfer Efficiency
UTM	Universal Transverse Mercator
VOC	volatile organic compounds

FACILITY INFORMATION

Description

Coachman Automotive, Inc. – dba Fix Auto Post Falls is an auto body repair and refinishing facility with a paint spray booth which is equipped with a paint booth heater. The paint booth is a pressurized downdraft booth with dry fiber filtration media for control of particulate emissions. Drying and paint curing is done in the paint booth. The booth is equipped with a natural gas-fired heater. The process includes application of coatings via HVLP paint guns.

Permitting History

This is the initial PTC for a facility that was constructed in April 15, 2019, thus there is no permitting history.

Application Scope

This is the initial PTC for a facility that was constructed in April 15, 2019.

Application Chronology

June 10, 2019	DEQ received an application and an application fee.
June 14 – July 1, 2019	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
June 12, 2019	DEQ determined that the application was complete.
June 12, 2019	DEQ made available the draft permit and statement of basis for peer review.
June 18, 2019	DEQ received the permit processing fee.
July 5, 2019	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

The facility utilizes dry fiber filtration media for control of particulate matter emissions from the automotive coating operation. In addition, HVLP paint guns are used to minimize particulate matter and VOC emissions from painting. The HVLP spray equipment will control all particulate matter and VOC emissions by having more paint transfer to the desired surfaces than traditional painting equipment.

Emissions Units and Control Devices

Table 1 EMISSIONS UNIT AND CONTROL DEVICE INFORMATION

Source Description	Control Equipment Description
<p><u>Paint spray booth and/or preparation station:</u> Manufacturer: Nova Verta Model: K40-3000 Note: The number of booths installed at the facility is not limited by this permit.</p> <p><u>Paint booth heater:</u> Manufacturer: Power Flame Model: JR30A-12 Total Heat input capacity(s): 1.2 MMBtu/hr Fuel: Natural Gas only</p>	<p><u>Paint spray booth and/or preparation station filter system:</u> Booth Type: Down draft Particulate filtration method: Dry Filters Manufacturer: Superior Fibers Model: PA22-273 PM/PM₁₀ Control Efficiency: 98% or greater</p> <p><u>Coating spray gun(s):</u> Manufacturer(s): SATA Model(s): 5000 Type: HVLP Transfer Efficiency: 65% or greater</p>

Emissions Inventories

Potential to Emit

IDAPA 58.01.01.006 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Using this definition of Potential to Emit an emission inventory was developed for the automotive coating operation associated with this proposed project (see Appendix A for detailed potential to emit calculations). Criteria pollutant and HAPs PTE were based on the worst-case VOC, particulate matter, and HAPs content for coatings as taken from the DEQ Automotive Coating EI spreadsheet (see the DEQ website).

Uncontrolled Potential to Emit

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall not be treated as part of its design since the limitation or the effect it would have on emissions is not state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a “Synthetic Minor” source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for criteria pollutants or HAPs above the applicable Major Source threshold without permit limits.

The following table presents the uncontrolled Potential to Emit for criteria pollutants as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. For this automotive coating operation uncontrolled Potential to Emit is based upon a worst-case for operation of the facility of 2,080 hrs/yr (8 hrs/day x 260 days/yr) with all coating operations occurring during this time. Since there is prep time (the time spent preparing the automobile for the application of coating) and paint drying time (the time the automobile spends in the booth with the burner operating to facilitate hardening of the coating) associated with applying coatings, this was considered to be the worst-case maximum for which emissions would occur.

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS

Emissions Unit	PM ₁₀ /PM _{2.5}	SO ₂	NO _x	CO	VOC	Lead
	T/yr	T/yr	T/yr	T/yr	T/yr	lb/quarter
Point Sources						
Paint spray booth and/or preparation station	3.74	0.0	0.0	0.0	12.24	0.0
Paint booth heater	0.079	0.03	1.77	0.88	0.06	0.0120
Total, Point Sources	3.82	0.03	1.77	0.88	12.30	0.01

The following table presents the uncontrolled Potential to Emit for HAP pollutants as determined by DEQ staff. The table only lists those individual HAPs that are emitted in the greatest quantities; see Appendix A for a complete listing of all HAPs emitted. For this automotive coating operation uncontrolled HAP emissions were calculated by using the DEQ Automotive Coating EI spreadsheet (see the DEQ website) and setting paint use to 4.0 gallons per day (as limited by the permit). Then, the worst-case maximum HAPs Potential to Emit was determined for all paints listed in the spreadsheet. As discussed previously, HAP emissions were assumed to occur during the worst-case for operation of the facility of 2,080 hrs/yr.

Table 3 UNCONTROLLED POTENTIAL TO EMIT FOR HAPs^{a)}

HAP Pollutants	PTE (T/yr)
Ethyl benzene	0.61
Methyl Isobutyl Ketone (MIBK)	1.26
Naphthalene	2.34
Toluene	1.92
Styrene	2.51
Xylene (o-, m-, p-isomers)	2.22
Total	10.86

a) The table does not list all individual HAPs, however the total PTE value reflects all HAPs.

Pre-Project Potential to Emit

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project. This is a new facility constructed April 15, 2019. Therefore, pre-project emissions are set to zero for all criteria pollutants.

Post Project Potential to Emit

Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

The following table presents the post project Potential to Emit for criteria pollutants from all emissions units at the facility as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 4 POST PROJECT POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS

Emissions Unit	PM ₁₀ /PM _{2.5}		SO ₂		NO _x		CO		VOC		Lead	
	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b
Point Sources												
Paint spray booth and/or preparation station	0.02	0.07	0.00	0.00	0.00	0.00	0.00	0.00	2.79	12.24	0	0
Paint booth heater	0.08	0.08	0.01	0.03	1.70	1.77	0.84	0.88	0.06	0.06	0.000005	0.000006
Post-Project Totals	0.09	0.15	0.01	0.03	1.70	1.77	0.84	0.88	2.85	12.30	0.000005	0.000006

- a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
 b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

The following table presents the post project Potential to Emit for HAP pollutants from all emissions units at the facility as determined by DEQ staff. The table only lists those individual HAPs that are emitted in the greatest quantities; see Appendix A for a complete listing of all HAPs.

Table 5 POST PROJECT POTENTIAL TO EMIT FOR HAPs^{a)}

HAP Pollutants	PTE (T/yr)
Ethyl benzene	0.61
Methyl Isobutyl Ketone (MIBK)	1.26
Naphthalene	2.34
Toluene	1.92
Styrene	2.51
Xylene (o-, m-, p-isomers)	2.22
Total	10.86

- a) The table does not list all individual HAPs, however the total PTE value reflects all HAPs.

Change in Potential to Emit

The project's change in Potential to Emit is used to determine if a public comment period may be required or if emissions modeling may be required, and to determine the processing fee per IDAPA 58.01.01.225.

The following table presents the change in the Potential to Emit for criteria pollutants as a result of this project.

Table 6 CHANGES IN POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS

	PM ₁₀ /PM _{2.5}		SO ₂		NO _x		CO		VOC		Lead	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Sources												
Pre-Project Potential to Emit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Post Project Potential to Emit	0.09	0.15	0.01	0.03	1.70	1.77	0.84	0.88	2.85	12.30	0.00	0.00
Changes in Potential to Emit	0.09	0.15	0.01	0.03	1.70	1.77	0.84	0.88	2.85	12.30	0.00	0.00

Non-Carcinogenic and Carcinogenic TAPs Potential to Emit

Because of the daily coating material use limits imposed by DEQ, and agreed to by the facility in applying for this Automotive Coating “General Permit”, no ELs specified in IDAPA 58.01.01.585 or 586 are expected to be exceeded by the facility (see the DEQ Automotive Coating EI spreadsheet on the DEQ website).

Ambient Air Quality Impact Analyses

Because of the daily coating material use limits imposed by DEQ, and agreed to by the facility in applying for this Automotive Coating “General Permit”, it needs to be determined if the PTE for the automotive coating operation exceeds the DEQ modeling guideline thresholds. The following table compares the post-project facility-wide annual emissions to the DEQ modeling guideline thresholds (per the State of Idaho Air Quality Modeling Guideline, September 2013).

Table 7 PTE FOR CRITERIA POLLUTANTS COMPARED TO THE DEQ MODELING GUIDELINE THRESHOLDS

Pollutant	PTE (T/yr)	DEQ Modeling Guideline Thresholds (T/yr)	Exceeds Modeling Guideline Threshold?
PM ₁₀	0.15	1.5	No
PM _{2.5}	0.15	1.0	No
SO ₂	0.03	4.0	No
NO _x	1.77	4.0	No
CO	0.88	10.0	No
Lead	0.00	0.06	No

Therefore, the installation of the new automotive coating operation does not require criteria pollutant modeling.

As presented previously in the DEQ Automotive Coatings EI Spreadsheet (see the DEQ website) there are no TAPs that required facility modeling for exceeding the pounds per hour screening levels provided in IDAPA 58.01.01.585 and .586. Therefore, the installation of a new automotive coating operation does not require TAPs modeling.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

Coachman Automotive, Inc. – dba Fix Auto Post Falls is located in Kootenai County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀, SO₂, NO₂, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification AIRS/AFS

As demonstrated in Table 2 the facility has an uncontrolled potential to emit for PM₁₀, SO₂, NO_x, CO, and VOC emissions are less than the Major Source thresholds of 100 T/yr for each pollutant. In addition, as demonstrated in Table 3 the facility has an uncontrolled potential for each HAP less than the Major Source threshold of 10 T/yr and for all HAPs combined less than the Major Source threshold of 25 T/yr. Therefore, this facility is classified as a natural minor source and is classified as a “B” source.

PTC Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 Permit to Construct Required

The PTC rules under IDAPA 58.01.01.201 require that “No owner or operator may commence construction or modification of any stationary source, facility, major facility, or major modification without first obtaining a permit to construct from the Department which satisfies the requirements of Sections 200 through 228 unless the source is exempted in any of Sections 220 through 223.” Therefore, DEQ staff analyzed the data from the permit application for the installation of this automotive coating operation to determine if it is exempt from obtaining a PTC according to Sections 220 through 223.

IDAPA 58.01.01.220

General Exemption Criteria for Permit to Construct Exemptions

In accordance with IDAPA 58.01.01.220.01.a, the maximum capacity of the source to emit an air pollutant under its physical and operational design without consideration of limitations on emissions such as air pollution control equipment, restrictions on hours of operation and restrictions on the type and amount of material combusted, stored, or processed shall not equal or exceed 100 tons/yr for all regulated air pollutants. As previously presented in Table 2, the proposed project results in uncontrolled potential emissions of less than 100 tons/yr for all regulated air pollutants. Therefore, the project meets the criteria set forth in Section 220 and may be exempt from PTC requirements. In addition, the criteria set forth in Section 221, 222, or 223 must be met to be exempt from PTC requirements.

IDAPA 58.01.01.221

Category I Exemption Criteria

In accordance with IDAPA 58.01.01.221.01, the maximum capacity of a source to emit an air pollutant under its physical and operational design considering limitations on emissions such as air pollution control equipment, restrictions on hours of operation and restrictions on the type and amount of material combusted, stored or processed shall be less than ten percent (10%) of the significant emission rates set out in the definition of significant at Section 006. The following table compares the post-project facility-wide annual PTE to 10% of the significance threshold listed in IDAPA 58.01.01.006 in order to determine if the project may qualify for a Category I exemption.

Table 8 PTE FOR CRITERIA POLLUTANTS COMPARED TO THE SIGNIFICANCE THRESHOLDS

Pollutant	PTE (T/yr)	10% of the Significance Threshold (T/yr)	Exceeds 10% of the Significance Threshold?
PM ₁₀	0.15	1.5	No
PM _{2.5}	0.15	1.0	No
SO ₂	0.03	4.0	No
NO _x	1.77	4.0	No
CO	0.88	10.0	No
VOC	12.30	4.0	Yes

The potential VOC emission rate of the proposed project is indicated in Table 10 above, which is above 10% of the significant emission rate listed in IDAPA 58.01.01.006. Therefore, the installation of a new automotive coating operation does not qualify for a Category I exemption.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401

Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625

Visible Emissions

The emissions from the automotive coating process are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Condition 6.

Rules for the Control of Odors (IDAPA 58.01.01.775-776)

IDAPA 58.01.01.775-776

Rules for the Control of Odors

The facility is subject to the general restrictions for the control of odors from the facility. This requirement is assured by Permit Conditions 7 and 12.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

IDAPA 58.01.01.006 defines a Tier I source as “Any source located at a major facility as defined in Section 008.”

IDAPA 58.01.01.008 defines a Major Facility as either:

- For HAPS a facility with the potential to emit ten (10) tons per year (T/yr) or more of any hazardous air pollutant, other than radionuclides, or
- The facility emits or has the potential to emit twenty-five (25) T/yr or more of any combination of any hazardous air pollutants, other than radionuclides.

Or, for non-attainment areas:

- The facility is located in a “serious” particulate matter (PM₁₀) nonattainment area and the facility has the potential to emit seventy (70) T/yr or more of PM₁₀, or
- The facility is located in a “serious” carbon monoxide nonattainment area in which stationary sources are significant contributors to carbon monoxide levels and the facility has the potential to emit fifty (50) T/yr or more of carbon monoxide, or
- The facility is located in an ozone transport region established pursuant to 42 U.S.C. Section 7511c and the facility has the potential to emit fifty (50) T/yr or more of volatile organic compounds, or
- The facility is located in an ozone nonattainment area and, depending upon the classification of the nonattainment area, the facility has the potential to emit the following amounts of volatile organic compounds or oxides of nitrogen; provided that oxides of nitrogen shall not be included if the facility has been identified in accordance with 42 U.S.C. Section 7411a(f)(1) or (2) if the area is “marginal” or “moderate,” one hundred (100) T/yr or more, if the area is “serious,” fifty (50) T/yr or more, if the area is “severe,” twenty-five (25) T/yr or more, and if the area is “extreme,” ten (10) T/yr or more.
- The facility emits or has the potential to emit one hundred (100) T/yr or more of any regulated air pollutant. The fugitive emissions shall not be considered in determining whether the facility is major unless the facility is a “Designated Facility.”

Uncontrolled HAP emissions were calculated by using the DEQ Automotive Coating EI spreadsheet (see the DEQ website) and setting paint use to 4.0 gallons per day (as limited by the permit). Then worst-case HAP emissions were determined for all paints listed in the spreadsheet. Then emissions were assumed to occur 2,080 hours per year as a worst-case assumption.

As presented in Table 5 the PTE for each HAP is less than 10 T/yr and the PTE for all HAPs combined is less than 25 T/yr. Therefore, this facility is not a HAPs Major Source subject to Tier I permitting requirements.

As discussed previously the Coachman Automotice, Inc. – dba Fix Auto Post Falls facility is located in Kootenai County (AQCR 6X), which is designated as attainment for PM_{2.5}, PM₁₀, SO₂, NO_x, CO, and Ozone for federal and state criteria air pollutants.

As presented in Table 4 the PTE for each criteria pollutant is less than 100 T/yr. Therefore, this facility is not a criteria pollutant Major Source subject to Tier I permitting requirements.

PSD Classification (40 CFR 52.21)

40 CFR 52.21

Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source, not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore, in accordance with 40 CFR 52.21(a)(2), the PSD requirements do not apply.

NSPS Applicability (40 CFR 60)

The facility is not subject to any NSPS requirements.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

40 CFR 63, Subpart HHHHHH

National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

§ 63.11169

What is the purpose of this subpart?

In accordance with §63.11169, subpart HHHHHH establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in auto body refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations.

§ 63.11170

Am I subject to this subpart?

In accordance with §63.11170(a), this automotive coating operation is subject to this subpart because the facility will be operated as an area source of HAP. The facility is a source of HAP that is not a major source of HAP, is not located at a major source, and is not part of a major source of HAP emissions. In addition, the facility will perform one or more activities listed in this section, including spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations.

§ 63.11171

How do I know if my source is considered a new source or an existing source?

In accordance with §63.11171(b), the automotive coating operation is the collection of mixing rooms and equipment; spray booths, curing ovens, and associated equipment; spray guns and associated equipment; spray gun cleaning equipment; and equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint. Paint stripping was not proposed as a business activity.

In accordance with §63.11171(c), this automotive coating operation is a new source because it will commence construction after September 17, 2007, by installing new paint stripping or surface coating equipment, and the new surface coating equipment will be used at a source that was not actively engaged in paint stripping and/or miscellaneous surface coating prior to September 17, 2007.

§ 63.11172

When do I have to comply with this subpart?

In accordance with §63.11172(a)(2), because the initial startup of the facility will occur after January 9, 2008, the compliance date is the date of initial startup of the automotive coating operation, April 15, 2019.

§ 63.11173

What are my general requirements for complying with this subpart?

Because the facility has not proposed paint-stripping activities, the requirements of §63.11173(a) through (f) are not applicable. Because the facility is an automotive coating operation, in accordance with §63.11173(e), the permittee must meet the requirements of in paragraphs (e)(1) through (e)(5) of this section.

In accordance with §63.11173(f), each owner or operator of an affected automotive coating operation must ensure and certify that all new and existing personnel, including contract personnel, who spray apply surface coatings, as defined in §63.11180, are trained in the proper application of surface coatings as required by paragraph (e)(1) of this section. The training program must include, at a minimum, the items listed in paragraphs (f)(1) through (f)(3) of this section.

In accordance with §63.11173(g), as required by paragraph (e)(1) of this section, all new and existing personnel at an affected motor vehicle and mobile equipment or miscellaneous surface coating source, including contract personnel, who spray apply surface coatings, as defined in §63.11180, must be trained by the dates specified in paragraphs (g)(1) and (2) of this section. Employees who transfer within a company to a position as a painter are subject to the same requirements as a new hire.

Compliance with these requirements is assured by permit condition 17.

§ 63.11174 What parts of the General Provisions apply to me?

In accordance with §63.11174(a), Table 1 of this subpart shows which parts of the General Provisions in subpart A apply. Compliance with these requirements is assured by permit condition 16.

In accordance with §63.11174(b), an owner or operator of an area source subject to this subpart is exempt from the obligation to obtain a permit under 40 CFR part 70 or 71 provided that a permit under 40 CFR 70.3(a) or 71.3(a) is not required for a reason other than becoming area source subject to this subpart. This permit application and permitting action involve a Permit to Construct, and will not utilize the requirements and procedures in IDAPA 58.01.01.300-399 for the issuance of Tier I operating permits.

§ 63.11175 What notifications must I submit?

In accordance with §63.11175(a), because the facility is a surface coating operation subject to this subpart, the initial notification required by §63.9(b) must be submitted. For this new operation, the Initial Notification must be submitted no later than 180 days after initial startup.

In accordance with §63.11175(b), because the facility is a new source, the permittee is not required to submit a separate notification of compliance status in addition to the initial notification specified in paragraph (a) of this subpart provided the permittee was able to certify compliance on the date of the initial notification, as part of the initial notification, and the permittee's compliance status has not since changed. The permittee must submit a Notification of Compliance Status on or before March 11, 2011. The permittee is required to submit the information specified in paragraphs (b)(1) through (4) of this section with the Notification of Compliance Status.

Compliance with these requirements is assured by permit condition 18.

§ 63.11176 What reports must I submit?

In accordance with §63.11176(a), because the permittee is an owner or operator of a paint stripping, motor vehicle or mobile equipment, or miscellaneous surface coating affected source, the permittee is required to submit a report in each calendar year in which information previously submitted in either the initial notification required by §63.11175(a), Notification of Compliance, or a previous annual notification of changes report submitted under this paragraph, has changed. Deviations from the relevant requirements in §63.11173(a) through (d) or §63.11173(e) through (g) on the date of the report will be deemed to be a change. The annual notification of changes report must be submitted prior to March 1 of each calendar year when reportable changes have occurred and must include the information specified in paragraphs (a)(1) through (2) of this section.

Compliance with these requirements is assured by permit condition 19.

Because the facility has not proposed to conduct paint stripping operations, the MeCl minimization plan requirements are not applicable (see permit condition 9).

§ 63.11177 What records must I keep?

In accordance with §63.11177, because the permittee is the owner or operator of a surface coating operation, the permittee must keep the records specified in paragraphs (a) through (d) and (g) of this section. Because the permittee has not proposed to conduct paint stripping operations, the requirements of paragraphs (e) and (f) of this section are not applicable. Compliance with these requirements is assured by permit condition 17.

§ 63.11178 In what form and for how long must I keep my records?

In accordance with 40 CFR 63.11178(a) because the permittee is the owner or operator of an affected source, the permittee must maintain copies of the records specified in §63.11177 for a period of at least five years after the date of each record. Copies of records must be kept on site and in a printed or electronic form that is readily accessible for inspection for at least the first two years after their date, and may be kept off-site after that two year period. Compliance with these requirements is assured by permit condition 17.

§ 63.11179 Who implements and enforces this subpart?

In accordance with §63.11179(a), this subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority. At the time of this permitting action, the EPA has not delegated authority to the State of Idaho. However, IDAPA 58.01.01.107.03.i incorporates by reference all Federal Clean Air Act requirements including 40 CFR 63, Subpart HHHHHH. Therefore, the requirements of this subpart have been placed in the permit.

§ 63.11180 What definitions do I need to know?

Terms used in this subpart are defined in accordance with §63.11180.

Permit Conditions Review

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Permit Condition 1 establishes the permit to construct scope.

Permit Condition 2 provides a description of the purpose of the permit and the regulated sources, the process, and the control devices used at the facility.

Permit Condition 3 provides a process description of the facility.

Permit Condition 4 provides a description of the control devices used at the facility.

Permit Condition 5 establishes hourly and annual emissions limits for PM₁₀ and VOC emissions from the automotive coating operation.

As mentioned previously, Permit Condition 6 establishes a 20% opacity limit for the paint booth stacks, vents, or functionally equivalent openings associated with the automotive coating operation.

As mentioned previously, Permit Condition 7 establishes that the permittee shall not allow, suffer, cause, or permit the emission of odorous gasses, liquids, or solids to the atmosphere in such quantities as to cause air pollution.

Permit Condition 8 establishes that only natural gas or LPG is allowed to be used as fuel in the paint booth heater as proposed by the applicant.

Permit Condition 9 establishes that the facility will not use MeCl to remove paint from vehicles at the facility. This was done because MeCl was not proposed to be used at this facility by the Applicant and the emissions were not included in the DEQ Automotive Coating EI Spreadsheet (see the DEQ website). In addition, Subpart HHHHHH has additional requirements for facilities that use MeCl to remove paint as mentioned previously in the discussion of Subpart HHHHHH in the MACT Applicability Section.

Permit Condition 10 establishes a daily use limit for all coating materials used in the automotive coating process as proposed by the Applicant. This limit was established because it was the easiest way for the Applicant to demonstrate compliance with the PM₁₀ and VOC emissions limit specified in permit condition 5 and the TAPs emissions limits specified in the DEQ Automotive Coating EI Spreadsheet (see the DEQ website).

Permit Condition 11 establishes that the permittee conduct all automotive coating operations in the paint booth or preparation station with the filters in place, exhaust fan(s) operating, and door(s) or curtain(s) closed, that the operation shall use a HVLP spray gun, and that the permittee shall maintain and operate the paint booth and preparation station exhaust filter system in accordance with the manufacturer's specifications. This condition also defines what a booth and preparation station used for applying coating is.

Permit Condition 12 establishes that the permittee shall maintain records of all odor complaints received, perform appropriate corrective actions, and maintain records of corrective actions taken at the facility for the automotive coating process. This was required because automotive operation operations are expected to have odors that might be offensive to their immediate neighbors.

Permit Condition 13 establishes that the permittee shall maintain material purchase records and Safety Data Sheets (SDSs) for the automotive coating process. This condition was placed in the permit to ensure compliance with the Coating Materials Use Limit Permit Condition.

Permit Condition 14 establishes that the permittee shall maintain daily usage records of pre-treatment wash primer, primer, topcoat, clear coat, and thinner/reducer materials used for the automotive coating process. This condition was placed in the permit to ensure compliance with the Coating Materials Use Limit permit condition.

Permit Condition 15 establishes that the permittee shall maintain records as required by the General Provision recordkeeping requirements.

Permit Condition 16 establishes parameters that will allow the facility to comply with the general operating requirements of 40 CFR 63, Subpart HHHHHH – MACT Standards and Management Practices for Paint Stripping and Miscellaneous Coating Operations unless the facility is exempt from HHHHHH.

Permit Condition 17 establishes parameters that will allow the facility to comply with the monitoring and recordkeeping requirements of 40 CFR 63, Subpart HHHHHH – MACT Standards and Management Practices for Paint Stripping and Miscellaneous Coating Operations unless the facility is exempt from HHHHHH.

Permit Condition 18 establishes parameters that will allow the facility to comply with the initial notification and reporting requirements of 40 CFR 63, Subpart HHHHHH – MACT Standards and Management Practices for Paint Stripping and Miscellaneous Coating Operations unless the facility is exempt from HHHHHH.

Permit Condition 19 establishes parameters that will allow the facility to comply with the annual notification and reporting requirements of 40 CFR 63, Subpart HHHHHH – MACT Standards and Management Practices for Paint Stripping and Miscellaneous Coating Operations unless the facility is exempt from HHHHHH.

Permit Condition 20 establishes that the federal requirements of 40 CFR Part 63 are incorporated by reference into the requirements of this permit per current DEQ guidance.

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

APPENDIX A – EMISSIONS INVENTORIES

Facility Data Input:

- Exempt? No
- Fuel type natural gas
- Heaters single/maximum
- Maximum gas-fired heater size 10.00 MMBtu/hr (total heat input of all gas-fired)
- Maximum oil-fired heater size 0.00 MMBtu/hr (total heat input of all oil-fired)
- Daily coating 4.00 gal/day
- Bed lining No
- Safety factor 1.20 (applied to TAP)
- Natural gas gross heating value 1,000 MMBtu/MMscf

General PTC Emission Inventories for Automotive Coating Operations
maximum emission estimates of all coatings analyzed and including booth heater emissions

Criteria Air Pollutants	Booth	Heater	Combined	Booth	Heater	Combined	BR/C Threshold	Below Threshold?
	Emissions	Emissions	Emissions	Emissions	Emissions	Emissions		
NO _x	0.000	1.700	1.700	0.00	1.77	1.77	4 T/yr	Yes
CO	0.000	0.840	0.840	0.00	0.88	0.88	10 T/yr	Yes
PM _{2.5} /PM ₁₀	0.0171	0.0760	0.0931	0.0749	0.0791	0.1540	1 T/yr	Yes
SO _x	0.000	0.006	0.006	0.00	0.03	0.03	4 T/yr	Yes
VOC	2.794	0.055	2.849	12.24	0.06	12.30	4 T/yr	No
Lead	0 E+00	5 E-06	5 E-06	0 E+00	6 E-06	6 E-06	0.06 T/yr	Yes
PM _{2.5} / PM ₁₀ (uncontrolled)	0.8560	0.0760	0.9310	3.7449	0.08	3.8240		

Hazardous Air Pollutants (HAP) and Toxic Air Pollutants (TAP)	Booth	Heater	Combined	Booth	Heater	Modeling	Below Threshold?
	Emissions	Emissions	Emissions	Emissions	Emissions	Threshold	
Organic HAP PAH							
2-Methylnaphthalene	0.00E+00	5.70E-08	5.70E-08	5.93E-08	9.10E-05	Yes	
3-Methylnaphthalene	0.00E+00	4.27E-09	4.27E-09	4.44E-09	2.90E-06	Yes	
Acenaphthene	0.00E+00	4.27E-09	4.27E-09	4.44E-09	9.10E-05	Yes	
Acenaphthylene	0.00E+00	4.27E-09	4.27E-09	4.44E-09	9.10E-05	Yes	
Anthracene	0.00E+00	5.70E-09	5.70E-09	5.93E-09	9.10E-05	Yes	
Benz(a)anthracene	0.00E+00	4.27E-09	4.27E-09	4.44E-09	9.10E-05	See POM	
Benz(a)pyrene	0.00E+00	2.85E-09	2.85E-09	2.96E-09	2.00E-06	See POM	
Benz(b)fluoranthene	0.00E+00	4.27E-09	4.27E-09	4.44E-09	See POM		
Benz(g,h)perylene	0.00E+00	2.85E-09	2.85E-09	2.96E-09	9.10E-05	Yes	
Benz(k)fluoranthene	0.00E+00	4.27E-09	4.27E-09	4.44E-09	See POM		
Chrysene	0.00E+00	4.27E-09	4.27E-09	4.44E-09	See POM		
Dibenz(a,h)anthracene	0.00E+00	2.85E-09	2.85E-09	2.96E-09	See POM		
7,12-Dimethylbenz(a)anthracene	0.00E+00	1.60E-07	1.60E-07	1.66E-07	9.10E-05	Yes	
Fluoranthene	0.00E+00	7.12E-09	7.12E-09	7.41E-09	9.10E-05	Yes	
Fluorene	0.00E+00	6.65E-09	6.65E-09	6.91E-09	9.10E-05	Yes	
Indeno[1,2,3-cd]pyrene	0.00E+00	4.27E-09	4.27E-09	4.44E-09	See POM		
Naphthalene	5.34E-01	1.45E-06	5.34E-01	2.34E+00	3.33E+00	Yes	
Phenanthrene	0.00E+00	4.04E-08	4.04E-08	4.20E-08	9.10E-05	Yes	
Pyrene	0.00E+00	1.19E-08	1.19E-08	1.25E-08	9.10E-05	Yes	
Polyyclic Organic Matter (POM - 7-PAH)	0.00E+00	2.71E-08	2.71E-08	2.82E-08	2.00E-06	Yes	
Organic Non-HAP							
1,4-Dioxane	0.00E+00	2.85E-06	2.85E-06	2.96E-06	3.00E+01	Yes	
Ethyl Benzene	1.48E-01	0.00E+00	1.40E-01	6.14E-01	2.90E+01	Yes	
Hexamethylene Diisocyanate	2.00E-03	0.00E+00	2.00E-03	8.74E-03	2.00E-03	Yes	
n-Hexane	4.06E-01	1.80E-02	4.18E-01	1.77E+00	1.20E+01	Yes	
Methanol	3.72E-02	0.00E+00	3.72E-02	1.63E-01	1.73E+01	Yes	
1-Methoxy-2-Propanol Acetate	3.21E-01	0.00E+00	3.21E-01	1.41E+00	2.40E+01	Yes	
Methyl Chloroform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.27E+02	Yes	
Methyl Isobutyl Ketone	2.87E-01	0.00E+00	2.87E-01	1.26E+00	1.37E+01	Yes	
Methyl Methacrylate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.73E+01	Yes	
Phenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E+00	Yes	
Styrene	5.73E-01	0.00E+00	5.73E-01	2.51E+00	6.67E+00	Yes	
Toluene	4.38E-01	3.40E-05	4.38E-01	1.92E+00	2.92E+01	Yes	
Xylene	5.07E-01	0.00E+00	5.07E-01	2.22E+00	2.93E+01	Yes	
Organic Non-HAP							
Acetone	5.58E-01	0.00E+00	5.58E-01	2.44E+00	1.19E+02	Yes	
n-Amyl Acetate	1.66E-02	0.00E+00	1.66E-02	7.29E-03	3.53E+01	Yes	
2-Butoxyethanol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.00E+00	Yes	
Butyl Acetate	1.19E+00	0.00E+00	1.19E+00	5.21E+00	4.73E+01	Yes	
Carbon Black	8.33E-04	0.00E+00	8.33E-04	3.65E-03	2.30E-01	Yes	
Cyclohexane	1.29E-02	0.00E+00	1.29E-02	5.64E-02	7.00E+01	Yes	
Cyclohexanone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.67E+00	Yes	
Diethyl Phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-01	Yes	
Dimethyl Phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-01	Yes	
Ethyl Alcohol	6.66E-02	0.00E+00	6.66E-02	2.92E-01	1.26E+02	Yes	
Heptane	9.30E-02	0.00E+00	9.30E-02	4.07E-01	1.02E+02	Yes	
Isobutanol	3.55E-01	0.00E+00	3.55E-01	1.56E+00	1.02E+01	Yes	
Isobutyl Acetate	7.33E-02	0.00E+00	7.33E-02	3.21E-01	4.67E+01	Yes	
Isobutyl Alcohol	3.55E-01	0.00E+00	3.55E-01	1.56E+00	1.02E+01	Yes	
Isophorone Diisocyanate	2.50E-03	0.00E+00	2.50E-03	1.10E-02	6.00E-03	Yes	
Isopropyl Alcohol (IPA)	6.63E-01	0.00E+00	6.63E-01	2.91E+00	6.53E+01	Yes	
Isopropyl Acetate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.93E+01	Yes	
Methyl Acetate	3.32E-01	0.00E+00	3.32E-01	1.45E+00	4.67E+01	Yes	
Methyl Ethyl Ketone	2.76E-01	0.00E+00	2.76E-01	1.21E+00	3.60E+01	Yes	
Methyl Isopropyl Ketone	1.02E-01	0.00E+00	1.02E-01	4.49E-01	1.02E+01	Yes	
Methyl Isobutyl Carbonyl	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.90E+00	Yes	
Methyl Propyl Ketone	1.58E-01	0.00E+00	1.58E-01	6.90E-01	4.67E+01	Yes	
Propionic Acid	1.51E-02	0.00E+00	1.51E-02	6.61E-02	2.00E+00	Yes	
Propyl Acetate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.60E+01	Yes	
Propyl Alcohol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E+01	Yes	
Trimethyl Benzene	1.68E-01	0.00E+00	1.68E-01	8.24E-01	8.20E+00	Yes	
Metal HAP							
Antimony	1.86E-03	0.00E+00	1.86E-03	8.17E-03	3.30E-02	Yes	
Arsenic	0.00E+00	4.75E-07	4.75E-07	4.94E-07	1.50E-06	Yes	
Beryllium	0.00E+00	2.85E-08	2.85E-08	2.96E-08	2.00E-05	Yes	
Cadmum	0.00E+00	2.61E-06	2.61E-06	2.72E-06	3.70E-06	Yes	
Chromium	5.63E-04	1.40E-05	5.77E-04	2.48E-03	3.30E-02	Yes	
Cobalt	0.00E+00	8.40E-07	8.40E-07	9.74E-07	3.30E-03	Yes	
Iron (Iodide Fume)	0.00E+00	9.00E-06	9.00E-06	9.40E-06	3.10E-05	Yes	
Manganese	0.00E+00	3.80E-06	3.80E-06	3.95E-06	3.33E-01	Yes	
Micai	0.00E+00	4.99E-06	4.99E-06	5.19E-06	2.70E-05	Yes	
Vanadium	0.00E+00	2.30E-05	2.30E-05	2.39E-05	3.00E-03	Yes	
Inorganic HAP							
Selenium	0.00E+00	2.40E-07	2.40E-07	2.50E-07	1.30E-02	Yes	
Inorganic Non-HAP							
Calcium Carbonate	1.30E-03	0.00E+00	1.30E-03	5.70E-03	6.67E-01	Yes	
Kapton	3.93E-03	0.00E+00	3.93E-03	1.72E-02	1.33E-01	Yes	
Magnesite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.07E-01	Yes	
Mica	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-01	Yes	
Silica - Amorphous	1.67E-03	0.00E+00	1.67E-03	7.30E-03	6.67E-01	Yes	
Silica - Crystalline Croalbite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.30E-03	Yes	
Silica - Crystalline Quartz	2.35E-03	0.00E+00	2.35E-03	1.03E-02	6.70E-03	Yes	
Zinc and Zinc Oxide Dust	0.00E+00	2.90E-04	2.90E-04	3.02E-04	6.67E-01	Yes	
HAP ₁₀₀		2.727	11.95				
HAP _{MAX}		0.574	2.52				

TAP EL Modeling Threshold Multiple	100%	Level II / Level III
Assumptions when estimating spray booth heater emissions:		
• Maximum gas-fired heater size	10.00	MMBtu/hr
• Maximum oil-fired heater size	0.00	MMBtu/hr
• Annual heater operation	2080	hr/yr
• Natural gas heat content	1,000	MMBtu/MMscf
• Natural gas sulfur content	15	or/100 ft ³ sulfur weight content
• Fuel type		natural gas only
• Heaters		single/maximum
Assumptions when estimating spray booth emissions:		
• Maximum coating use rates	4.00	gal/day for all coatings (excluding "B" component)
• Averaging period	24	hr/day average
• Annual booth operation	8,760	hr/yr
• Safety factor	1.20	allowance for coatings not analyzed
• Transfer efficiency	65%	control for particulates
• Filter removal efficiency	98%	control for particulates
• Isocyanate reaction factor	85%	control for isocyanates (not applied to MDI)
• Maximum coating density	16.76	lb/gal
• % of monomer in mixture	1%	for diisocyanates in hardener mixture
If no % of TAP was listed in the MSDS, then 1.0% was assumed		

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS

Emissions Unit	PM ₁₀ /PM _{2.5}	SO ₂	NO _x	CO	VOC	Lead
	T/yr	T/yr	T/yr	T/yr	T/yr	lb/quarter
Point Sources						
Paint spray booth(s) and/or preparation station(s)	3.74	0.0	0.0	0.0	12.24	0.0
Paint booth heater(s) (<i>If installed</i>)	0.079	0.03	1.77	0.88	0.06	0.0120
Total, Point Sources	3.82	0.03	1.77	0.88	12.30	0.01

Table 3 UNCONTROLLED POTENTIAL TO EMIT FOR HAPS^a

HAP Pollutants	PTE (T/yr)
Ethyl benzene	0.61
Methyl Isobutyl Ketone (MIBK)	1.26
Naphthalene	2.34
Toluene	1.92
Styrene	2.51
Xylene (o-, m-, p-isomers)	2.22
Total	10.87

Table 4 POST PROJECT POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS

Emissions Unit	PM ₁₀ /PM _{2.5}		SO ₂		NO _x		CO		VOC		Lead	
	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b	lb/hr ^a	T/yr ^b	lb/hr	T/yr
Point Sources												
Paint spray booth(s) and/or preparation station(s)	0.02	0.07	0.00	0.00	0	0.00	0	0.00	2.79	12.24	0	0
Paint booth heater(s) (<i>If installed</i>)	0.08	0.08	0.01	0.03	1.70	1.77	0.84	0.88	0.06	0.06	0.000005	0.000006
Post-Project Totals	0.09	0.15	0.01	0.03	1.70	1.77	0.84	0.88	2.85	12.30	0.000005	0.000006

Table 5 POST PROJECT POTENTIAL TO EMIT FOR HAPS^a

HAP Pollutants	PTE (T/yr)
Ethyl benzene	0.61
Methyl Isobutyl Ketone (MIBK)	1.26
Naphthalene	2.34
Toluene	1.92
Styrene	2.51
Xylene (o-, m-, p-isomers)	2.22
Total	10.87

Table 6 CHANGES IN POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS

	PM ₁₀ /PM _{2.5}		SO ₂		NO _x		CO		VOC		Lead	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Sources												
Pre-Project Potential to Emit	0	0	0	0	0	0	0	0	0	0	0	0
Post Project Potential to Emit	0.09	0.15	0.01	0.03	1.70	1.77	0.84	0.88	2.85	12.30	0.00	0.00
Changes in Potential to Emit	0.09	0.15	0.01	0.03	1.70	1.77	0.84	0.88	2.85	12.30	0.00	0.00

Table 7 PTE FOR CRITERIA POLLUTANTS COMPARED TO THE DEQ MODELING GUIDELINE THRESHOLDS

Pollutant	PTE (T/yr)	DEQ Modeling Guideline Thresholds		Exceeds Modeling Guideline Threshold?
		(T/yr)	(T/yr)	
PM ₁₀	0.15	1.5	No	
PM _{2.5}	0.15	1	No	
SO ₂	0.03	4	No	
NO _x	1.77	4	No	
CO	0.88	10	No	
Lead	0.00	0.06	No	

Table 8 PTE FOR CRITERIA POLLUTANTS COMPARED TO THE SIGNIFICANCE THRESHOLDS

Pollutant	PTE (T/yr)	10% of the Significance Threshold		Exceeds 10% of the Significance Threshold?
		(T/yr)	(T/yr)	
PM ₁₀	0.15	1.5	No	
PM _{2.5}	0.15	1.0	No	
SO ₂	0.03	4.0	No	
NO _x	1.77	4.0	No	
CO	0.88	10.0	No	
VOC	12.30	4.0	Yes	

Coating Type: Surface Prep

Coating Type: Primer

Current Weight %:

Coating Material	Density	Solids (particulate)	HAP _{Part}	Acetone	BuOAc	Carbon Black (particulate)	Ethy Benzene	Kaolin (particulate)	Magnesium Carbonate	1-Methoxy-2-propanol	Methyl Acetate	Methyl Ethyl Ketone (MEK)	Naphthalene (HAP)	Phosphoric Acid Salt	Silica (particulate)	Toluene (HAP)	Xylenes (HAP)
Basf DP-20	6.1%	10.00%	10.00%	20.00%	1.00%	15.20%	5.00%	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	7.70%	5.20%
Basf DP-21	70%	5.00%	5.00%	20.00%	5.00%	1.40%	15.00%	1.40%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	2.00%	6.20%
Basf DP-28	59%	5.00%	5.00%	20.00%	5.00%	1.40%	15.00%	1.40%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	2.00%	6.20%
Basf DP-27	59%	5.00%	5.00%	20.00%	5.00%	1.40%	15.00%	1.40%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	2.00%	6.20%
Basf DP-31	68%	5.00%	5.00%	20.00%	5.00%	1.40%	15.00%	1.40%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	2.00%	6.20%
Basf DP-200	87%	14.00%	10.00%	20.00%	5.00%	2.00%	15.00%	5.00%	5.00%	5.00%	10.00%	10.00%	5.00%	5.00%	5.00%	10.00%	10.00%
Basf DP-210	87%	14.00%	10.00%	20.00%	5.00%	2.00%	15.00%	5.00%	5.00%	5.00%	10.00%	10.00%	5.00%	5.00%	5.00%	10.00%	10.00%
Basf DP-220	79%	10.00%	10.00%	25.00%	5.00%	0.20%	10.00%	5.00%	5.00%	5.00%	10.00%	10.00%	40.00%	40.00%	40.00%	10.00%	10.00%
Basf DP-230	79%	10.00%	10.00%	25.00%	5.00%	0.20%	10.00%	5.00%	5.00%	5.00%	10.00%	10.00%	40.00%	40.00%	40.00%	10.00%	10.00%
Basf DP-330	52%	5.00%	5.00%	25.00%	5.00%	0.20%	10.00%	5.00%	5.00%	5.00%	10.00%	10.00%	40.00%	40.00%	40.00%	10.00%	10.00%
Basf DP-4505	49.01%	49.01%	49.01%	49.01%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	8.00%	8.00%
DuPont N42-140	56.62%	56.62%	56.62%	56.62%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	6.50%	6.50%
DuPont N42-148	52.35%	52.35%	52.35%	52.35%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	2.00%	2.00%
DuPont N42-15	52.35%	52.35%	52.35%	52.35%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	2.00%	2.00%
DuPont N42-17	62.36%	62.36%	62.36%	62.36%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	21.00%	21.00%
DuPont N42-18	63.65%	63.65%	63.65%	63.65%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	21.00%	21.00%
DuPont N42-19	61.62%	61.62%	61.62%	61.62%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	10.00%	10.00%
DuPont N42-20	59.82%	59.82%	59.82%	59.82%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	10.00%	10.00%
DuPont N42-21	59.82%	59.82%	59.82%	59.82%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	10.00%	10.00%
DuPont N42-30	64.77%	64.77%	64.77%	64.77%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	1.00%	1.00%
DuPont N42-40	53.79%	53.79%	53.79%	53.79%	1.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Content (Total)																	
Coating Material	Density	Solids (particulate)	HAP _{Part}	Acetone	BuOAc	Carbon Black (particulate)	Ethy Benzene	Kaolin (particulate)	Magnesium Carbonate	1-Methoxy-2-propanol	Methyl Acetate	Methyl Ethyl Ketone (MEK)	Naphthalene (HAP)	Phosphoric Acid Salt	Silica (particulate)	Toluene (HAP)	Xylenes (HAP)
Basf DP-20	12.62	8.46	2.46	1.76	1.26	0.00	0.22	0.14	1.36	0.63	0.63	1.26	0.00	0.63	0.63	0.63	0.63
Basf DP-21	12.55	8.46	2.46	1.44	0.68	0.00	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-28	11.58	8.46	2.46	1.44	0.68	0.00	2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-27	11.41	8.73	1.44	0.72	0.72	0.56	2.26	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-31	10.95	7.23	1.44	0.72	0.72	0.56	2.26	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-200	14.04	9.35	1.45	0.73	0.55	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-210	13.78	9.35	1.45	0.73	0.55	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-220	13.73	9.35	1.45	0.73	0.55	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-321	12.06	6.51	1.60	0.80	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-8330	9.19	4.76	2.41	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basf DP-4535	9.19	4.76	2.41	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-140	56.62	56.62	56.62	56.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-148	52.35	52.35	52.35	52.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-15	52.35	52.35	52.35	52.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-17	62.36	52.36	52.36	52.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-18	63.65	52.36	52.36	52.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-19	61.62	52.36	52.36	52.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-20	59.82	52.36	52.36	52.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-21	59.82	52.36	52.36	52.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-22	59.82	52.36	52.36	52.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-30	64.77	52.36	52.36	52.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DuPont N42-40	53.79	52.36	52.36	52.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Content (Below E7)																	
Coating Material	Density	Solids (particulate)	HAP _{Part}	Acetone	BuOAc	Carbon Black (particulate)	Ethy Benzene	Kaolin (particulate)	Magnesium Carbonate	1-Methoxy-2-propanol	Methyl Acetate	Methyl Ethyl Ketone (MEK)	Naphthalene (HAP)	Phosphoric Acid Salt	Silica (particulate)	Toluene (HAP)	Xylenes (HAP)
DuPont TAP EL	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Maximum (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Averaging Period (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Annual Usage Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Annual Usage Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Solvent Recovery Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Solvent Recovery Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Solvent Recovery Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Solvent Recovery Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Solvent Recovery Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Solvent Recovery Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Solvent Recovery Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01	1.5E-01	1.5E-01	1.5E-01	3.2E-01	3.2E-01	3.2E-01	6.7E-01	6.7E-01
Solvent Recovery Rate (Initial Rate)	1.1E-02	5.3E-01	4.3E-01	1.4E-01	1.7E-01	2.3E-01	1.2E-01	2.4E-01	4.0E-01</								

Coating Type: Base and Color

Coating Material	Content Weight %	Solids (particulate)	HAP _{70%}	HAP _{MAX}	Aromatic Hydrocarbon	Barium Sulfate	Butyl Acetate	Carbon Black (particulate)	Ethyl Benzene (HAP ^a)	3-Ethoxy Propionate	Ethyleneglycol Monobutyl Ether	Methyl n-Amyl Ketone (HAP ^b)	Methyl Ethyl Ketone (HAP ^c)	Silica Amorphous (particulate)	Silica Crystalline (coagulated)	Standard Deviation Methodology (HAP ^d)	Tin Oxide (HAP ^e)	Tin Oxide Barium (HAP ^f)	V-Max ^g Naphtaphthalene	V-Max ^g Naphtalene	Yield (%)
BASF C10	10.00%																			13.72%	
BASF D17	10.00%																			6.20%	
BASF D18	10.00%																			7.12%	
BASF H-D60	10.00%																			2.00%	
BASF H-D81	10.00%																			4.00%	
BASF I-D85	10.00%																			3.00%	
BASF I-D97	10.00%																			1.50%	
BASF I-C020	10.00%																			2.80%	
BASF SCD1	10.00%																			5.30%	
BASF C023	10.00%																			4.00%	
BASF S-C10	10.00%																			4.50%	
BASF S-C20	10.00%																			1.30%	
BASF S-C25	10.00%																			2.00%	
BASF S-C28	10.00%																			1.30%	
BASF C-C40	10.00%																			2.00%	
BASF C-C43	10.00%																			1.00%	
BASF S-C44	10.00%																			4.80%	
BASF S-C46	10.00%																			6.50%	
BASF S-C48	10.00%																			6.60%	
BASF S-C56	10.00%																			4.50%	
BASF S-C59	10.00%																			4.50%	
BASF C-C74	10.00%																			0.10%	
BASF S-C77	10.00%																			0.10%	
BASF C-C78	10.00%																			0.10%	
BASF C-C84	10.00%																			0.10%	
BASF C-C82	10.00%																			0.10%	
BASF S-C85	10.00%																			0.10%	
BASF S-C86	10.00%																			0.10%	
BASF S-C87	10.00%																			0.10%	
BASF S-C89	10.00%																			0.10%	
BASF S-C97	10.00%																			0.10%	
BASF S-C104	10.00%																			0.10%	
BASF S-C105	10.00%																			0.10%	
BASF S-C106	10.00%																			0.10%	
Dupont Nason D22-23	33.61%	1.00%	1.00%																	2.30%	
Dupont Nason D22-33	72.31%	1.00%	1.00%																	3.00%	
Dupont Nason D22-46	76.92%	1.00%	1.00%																	4.00%	
Dupont Nason D22-48	84.87%	1.00%	1.00%																	5.00%	
Dupont Nason D22-49	61.17%	1.00%	1.00%																	1.00%	
Dupont ChromBase 80117560	32.15%	1.00%	1.00%																	2.00%	
Dupont ChromBase 80117561	25.12%	1.00%	1.00%																	3.00%	
Dupont ChromBase 80117562	25.40%	1.00%	1.00%																	4.00%	
Dupont ChromBase 80117563	29.55%	1.00%	1.00%																	5.00%	
Dupont ChromBase 80117564	23.80%	1.00%	1.00%																	6.00%	
Dupont ChromBase 80117565	26.41%	1.00%	1.00%																	7.00%	
Dupont ChromBase 80117566	40.45%	1.00%	1.00%																	8.00%	
Dupont ChromBase 80117567	42.00%	1.00%	1.00%																	9.00%	
Dupont ChromBase 80117568	39.65%	1.00%	1.00%																	10.00%	
Dupont ChromBase 80117569	27.13%	1.00%	1.00%																	11.00%	
Dupont ChromBase 80117570	40.57%	1.00%	1.00%																	12.00%	
Dupont ChromBase 80117571	25.73%	1.00%	1.00%																	13.00%	
Dupont ChromBase 80117572	19.00%	1.00%	1.00%																	14.00%	
Dupont ChromBase 80117573	19.00%	1.00%	1.00%																	15.00%	
Dupont ChromBase 80117574	19.00%	1.00%	1.00%																	16.00%	
Dupont ChromBase 80117575	19.00%	1.00%	1.00%																	17.00%	
Dupont ChromBase 80117576	19.00%	1.00%	1.00%																	18.00%	
Dupont ChromBase 80117577	19.00%	1.00%	1.00%																	19.00%	
Dupont ChromBase 80117578	19.00%	1.00%	1.00%																	20.00%	
Dupont ChromBase 80117579	19.00%	1.00%	1.00%																	21.00%	
Dupont ChromBase 80117580	19.00%	1.00%	1.00%																	22.00%	
Dupont ChromBase 80117581	19.00%	1.00%	1.00%																	23.00%	
Dupont ChromBase 80117582	19.00%	1.00%	1.00%																	24.00%	
Dupont ChromBase 80117583	19.00%	1.00%	1.00%																	25.00%	
Dupont ChromBase 80117584	19.00%	1.00%	1.00%																	26.00%	
Dupont ChromBase 80117585	19.00%	1.00%	1.00%																	27.00%	
Dupont ChromBase 80117586	19.00%	1.00%	1.00%																	28.00%	
Dupont ChromBase 80117587	19.00%	1.00%	1.00%																	29.00%	
Dupont ChromBase 80117588	19.00%	1.00%	1.00%																	30.00%	
Dupont ChromBase 80117589	19.00%	1.00%	1.00%																	31.00%	
Dupont ChromBase 80117590	19.00%	1.00%	1.00%																	32.00%	
Dupont ChromBase 80117591	19.00%	1.00%	1.00%																	33.00%	
Dupont ChromBase 80117592	19.00%	1.00%	1.00%																	34.00%	
Dupont ChromBase 80117593	19.00%	1.00%	1.00%																	35.00%	
Dupont ChromBase 80117594	19.00%	1.00%	1.00%																	36.00%	
Dupont ChromBase 80117595	19.00%	1.00%	1.00%																	37.00%	
Dupont ChromBase 80117596	19.00%	1.00%	1.00%																	38.00%	
Dupont ChromBase 80117597	19.00%	1.00%	1.00%																	39.00%	
Dupont ChromBase 80117598	19.00%	1.00%	1.00%																	40.00%	
Dupont ChromBase 80117599	19.00%	1.00%	1.00%																	41.00%	
Dupont ChromBase 80117600	19.00%	1.00%	1.00%																	42.00%	
Dupont ChromBase 80117601	19.00%	1.00%	1.00%																	43.00%	
Dupont ChromBase 80117602	19.00%	1.00%	1.00%																	44.00%	
Dupont ChromBase 80117603	19.00%	1.00%	1.00%																	45.00%	
Dupont ChromBase 80117604	19.00%	1.00%	1.00%																	46.00%	
Dupont ChromBase 80117605	19.00%	1.00%	1.00%																	47.00%	
Dupont ChromBase 80117606	19.00%	1.00%	1.00%																	48.00%	
Dupont ChromBase 80117607	19.00%	1.00%	1.00%																	49.00%	
Dupont ChromBase 80117608	19.00%	1.00%	1.00%																	50.00%	
Dupont ChromBase 80117609	19.00%	1.00%	1.00%																	51.00%	
Dupont ChromBase 80117610	19.00%	1.00%	1.00%																	52.00%	
Dupont ChromBase 80117611	19																				

Coating Type: Base and Color		
4.00	24	65.00% ----- 96.00%
Incorporate Rate Factor (Ratio)	Annual Usage Rate (g/year)	Safety Factor (Ratio)
85.00%	1,480.0	1.20

Coating Type: Clearcoat

Daily Use Rates [Gal/day]	Averaging Period [Hour]	Transfer Efficiency [%]	Filter Control Efficiency [%]
4.00	24	95.00%	98.00%

Coating Type: Clearcoat

Coating Type: Tints, Toners, and Binders

Coating Type: Reducer

Content Weight %	Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Butyl Acetate	Stoddard Solvent Mineral Spirits	Trimethyl Benzene	VM&P Naphtha
BASEF UR50 Content lb/gal			0%		65.00%		15.00%	2.00%	5.00%
Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Butyl Acetate	Stoddard Solvent Mineral Spirits	Trimethyl Benzene	VM&P Naphtha	
BASEF UR50	7.28	0.00	0.00	0.00	4.73	1.09	0.15	0.36	
Maximum (lb/gal)	7.28	0.00	0.00	0.00	4.73	1.09	0.15	0.36	
Emission Rate (lb/hr)		0.0E+00	0.0E+00	0.0E+00	9.5E-01	2.2E-01	2.9E-02	7.3E-02	
IDAPA TAP EL (lb/hr)				4.73E+01	3.50E+01	8.20E+00	9.13E+01		
Below EL?				Yes	Yes	Yes	Yes	Yes	
Daily Use Rates (gal/day)	Averaging Period (hr/day)	Transfer Efficiency (%)	Filter Control Efficiency (%)						
4.00	24	65.00%	98.00%						
Isocyanate Reaction Factor (ratio)	Annual Usage Rate (gallyr)	Safety Factor (ratio)							
85.00%	1,460.0	1.20							

Coating Type: Activators, Reducers, Solvents, and Additives

Coating Type: Hardener			
Content Weight %	Coating Material	Density	
BASF DH-16	8.5		
BASF DH-18	8.5		
BASF DH-42	8.87		
BASF DH-55	8.16		
BASF DH-57	8.25		
BASF DH-59	8.3		
BASF DH-62	8.44		
Content Weight %			
Coating Material	Density		
BASF DH-16	8.5		
BASF DH-18	8.5		
BASF DH-42	8.87		
BASF DH-55	8.16		
BASF DH-57	8.25		
BASF DH-59	8.3		
BASF DH-62	8.44		
Maximum	8.87		
(lb/gal)			
Emission Rate (lb/hr)			
IDAPA TAP EL (lb/hr)			
Below EL?			
		Averaging Period (thirty day)	24
Daily Use Rates (g/day)	4.00	Annual Usage Rate (g/year)	1,440,000
		Isocyanate Reaction Factor (ratio)	85.0/55.0

Coating Type: Rubberized Undercoating

Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Acetone	Calcium Carbonate (particulate)	Carbon Black (particulate)	Ethy Benzene (HAP)	Ethyl Alcohol
Content Weight %									
Dupont 492-01									
Dupont 492-51									
3M Body Schutz									
SW DUPLI-COLOR Undercoat									
DURO KOTE Undercoat									
Quick Dry Rubberized									
Transstar 4363-F									
Content lb/gal									
Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Acetone	Calcium Carbonate (particulate)	Carbon Black (particulate)	Ethy Benzene (HAP)	Ethyl Alcohol
Dupont 492-01	9.52	0.00	1.71	1.71	0.00	0.00	0.00	0.00	0.00
Dupont 492-51	8.68	0.00	2.26	1.13	0.00	0.09	0.06	0.00	0.00
3M Body Schutz	6.66	0.00	2.00	2.00	0.00	0.07	0.00	0.00	0.33
SW DUPLI-COLOR	7.38	0.00	0.41	0.22	0.00	0.89	0.00	0.04	0.00
DURO KOTE Und	8.16	0.00	1.22	1.22	0.00	0.00	0.00	0.00	0.00
Quick Dry Ruberi	9.30	0.00	2.14	1.21	2.79	0.93	0.46	0.09	0.00
Transstar 4363-F	7.53	0.00	1.70	1.51	2.26	0.18	0.38	0.08	0.00
Maximum (lb/gal)	9.52	0.00	2.26	2.00	2.79	0.93	0.46	0.09	0.33
Emission Rate (lb/hr)		0.0E+00	4.5E-01	4.0E-01	5.6E-01	1.3E-03	6.5E-04	1.9E-02	6.7E-02
IDAPA TAP EL (lb/hr)						1.19E+02	6.67E-01	2.3E-01	2.9E+01
Below EL?						Yes	Yes	Yes	Yes
Daily Use Rates (gal/day)	4.00	Averaging Period (hr/day)	24	Transfer Efficiency (%)	65.00%	Filter Control Efficiency (%)	98.00%	1.20	
Isocyanate Reaction Factor (ratio)	85.00%	Annual Usage Rate (gal/yr)		Safety Factor (ratio)					
		1,460.0							

Coating Type: Rubberized Undercoating

Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Heptane	n-Hexane (HAP)	Kaolin (particulate)	Methanol (HAP)	Silica Crystalline Quartz (particulate)
Dupont 492-01									
Dupont 492-51									0.10%
3M Body Schutz									
SW DUPLI-COLOR Undercoat									
DURO KOTE Undercoat									
Quick Dry Rubberized									
Transtar 4363-F Content									
Ib/gal									
Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Heptane	n-Hexane (HAP)	Kaolin (particulate)	Methanol (HAP)	Silica Crystalline Quartz (particulate)
Dupont 492-01	9.52	0.00	1.71	1.71	0.00	0.00	0.10	0.00	0.00
Dupont 492-51	8.68	0.00	2.26	1.13	0.00	1.13	0.09	0.00	0.01
3M Body Schutz	6.66	0.00	2.00	2.00	0.00	2.00	0.00	0.00	0.00
SW DUPLI-COLOR	7.38	0.00	0.41	0.22	0.00	0.00	1.40	0.15	0.00
DURO KOTE Und	8.16	0.00	1.22	1.22	0.00	0.00	0.00	0.00	0.00
Quick Dry RubbeRI	9.30	0.00	2.14	1.21	0.46	1.21	0.00	0.19	0.09
Transtar 4363-F	7.53	0.00	1.70	1.51	0.00	0.00	0.00	0.00	0.08
Maximum (lb/gal)	9.52	0.00	2.26	2.00	0.46	2.00	1.40	0.19	0.09
Emission Rate (lb/hr)		0.0E+00	4.5E-01	4.0E-01	9.3E-02	4.0E-01	2.0E-03	3.7E-02	1.3E-04
IDAPA TAP EL (lb/hr)									
Below EL?									
Averaging Period (hr/day)	24								
Transfer Efficiency (%)									
Filter Control Efficiency (%)									
Annual Usage Rate (gal/yr)									
Safety Factor (ratio)									

Isocyanate Reaction Factor (ratio)	4.00	24	65.00%	98.00%
	85.00%		1,460.0	1.20

Coating Type: Rubberized Undercoating

Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Stoddard Solvent Mineral Spirits	Toluene (HAP)	VM&P Naphtha	Xylene (HAP)
Content Weight %								
Dupont 492-01					1.00%	18.00%	1.00%	1.00%
Dupont 492-51					1.00%	13.00%		
3M Body Schulz					5.00%	0.00%		
SW DUPLI-COLOR Undercoat					10.00%			3.00%
DURO KOTE Undercoat					15.00%			
Quick Dry Rubberized						15.00%	15.00%	2.00%
Transstar 4363-F						5.00%	5.00%	2.85%
Content lb/gal						20.00%		1.57%
Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Stoddard Solvent Mineral Spirits	Toluene (HAP)	VM&P Naphtha	Xylene (HAP)
Maximum (lb/gal)								
Dupont 492-01	9.52	0.00	1.71	1.71	0.10	1.71	0.10	0.00
Dupont 492-51	8.68	0.00	2.26	1.13	0.09	1.13	0.00	0.00
3M Body Schulz	6.66	0.00	2.00	2.00	0.33	0.00	0.00	0.00
SW DUPLI-COLOR	7.38	0.00	0.41	0.22	0.74	0.00	0.00	0.22
DURO KOTE Und	8.16	0.00	1.22	1.22	1.22	1.22	1.22	0.00
Quick Dry Rubberi	9.30	0.00	2.14	1.21	0.00	0.46	0.46	0.19
Transstar 4363-F	7.53	0.00	1.70	1.51	0.00	1.51	0.21	0.12
Maximum (lb/gal)	9.52	0.00	2.26	2.00	1.22	1.71	1.22	0.22
Emission Rate (lb/hr)		0.0E+00	4.5E-01	4.0E-01	2.4E-01	3.4E-01	2.4E-01	4.4E-02
IDAPA TAP EL (lb/hr)					3.50E+01	2.5E+01	9.13E+01	2.9E+01
Below EL?					Yes	Yes	Yes	Yes
Daily Use Rates (gal/day)	Averaging Period (hr/day)		Transfer Efficiency (%)	Filter Control Efficiency (%)				
4.00	24		65.00%	98.00%				
Isocyanate Reaction Factor (ratio)	Annual Usage Rate (gal/yr)		Safety Factor (ratio)					
85.00%	1,460.0		1.20					

Coating Type: Bed Liner "Iso" Component

Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Hexamethylene Diisocyanate (HDI)(HAP)	Methylene Diisocyanate (MDI)(HAP)
BASF XS-310					39.00%	
Vortex					60.00%	
Rhino 2170 A					60.00%	
Monstainer						
Morton 999623						
Speedliner 1000						
Speedliner Primer 450 & 460						
Langeman 700 A						
Pro-Tex Black						
Content						
lb/gal						

Coating Material	Density	Solids (particulate)	HAP _{TOT}	HAP _{MAX}	Hexamethylene Diisocyanate (HDI)(HAP)	Methylene Diisocyanate (MDI)(HAP)
BASF XS-310	9.80	0.00	3.82	3.82	0.00	3.82
Vortex	8.12	0.00	4.87	4.87	0.00	4.87
Rhino 2170 A	10.33	0.00	6.20	6.20	0.00	6.20
Monstainer	9.77	0.00	0.01	0.01	0.01	0.00
Morton 999623	9.58	0.00	0.03	0.03	0.03	0.00
Speedliner 1000	8.33	0.00	0.80	0.80	0.00	0.80
Speedliner Primer	8.33	0.00	0.92	0.92	0.00	0.92
Langeman 700 A	9.10	0.00	1.37	1.37	0.00	1.37
Pro-Tex Black	9.50	0.00	0.03	0.03	0.03	0.00
Maximum (lb/gal)	10.33	0.00	6.20	6.20	0.03	6.20

Emission Rate (lb/hr)	0.0E+00	1.2E+00	1.2E+00	1.0E-03	1.2E+00
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IDAPA TAP EL (lb/hr)	2.0E-03	3.0E-03
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Below EL? Yes Yes No

Daily Use Rates (gal/day)	Averaging Period (hr/day)	Transfer Efficiency (%)	Filter Control Efficiency (%)
4.00	24	65.00%	98.00%

Isocyanate Reaction Factor (ratio)	Annual Usage Rate (gallyr)	Safety Factor (ratio)
85.00%	1,460.0	1 / 20

Coating Type: Bed Liner "Iso" Component (MDI-Based)

$$L_{sp} = (V_{air}/359) * (2/3.15/t_{sp}) * 60 * (C_{MDI}/1000000) * MW * K_{MDI} * t_{sp}$$

where:

L_{sp}	= the annual emissions for spray coating operations	24.77	lb/yr ¹
V_{air}	= the exhaust airflow rate	10,000	ft ³ /min
359	= the molar volume of an ideal gas	359	ft ³ /lbmol @ 0°C and 1-atm
T_{sp}	= the spray temperature	308.15	K
C_{MDI}	= $(VP_{MDI}/760) \times 10^6$ = the MDI concentration in the exhaust air	0.0458	ppmv
VP_{MDI}	= MDI vapor pressure at exhaust temperature	3.48E-05	mmHg ²
MW	= the molecular weight of MDI (250.26)	250.26	lb/lbmol
K_{MDI}	= the adjustment factor to the vapor pressure that is a function of MDI concentration i	1.00	
t_{sp}	= hr/day \times 365 day/yr = is the total time in hours/year that spray coating is occurring	1460	hr/yr
t_{hr}	= is the total time in hours/day that spray coating is occurring	4.00	hr/day
T	= the spray temperature	95	°F

Emission Rate (lb/hr, 24-hr average)

IDAPA TAP EL

(lb/hr)

Below EL?

2.83E-03

3.00E-03

Yes

Coating Type: Bed Liner B Component

Coating Type: Other

Coating Type: Other

Coupling Type: Other

Coating Type: Other

Content Weight %	Cooling Material	Density	[P]
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Coating Type: Other

General PTC Emission Inventories for Automotive Coating Operations
spray booth heater emissions for natural gas and LPG combustion, AP-42 Sections 1.4 and 1.5

(7/98, 7/08)

Heat Input Capacity:
 10.00 MMBtu/hr

Operating Assumptions:
 24 hr/day
 2,080 hr/yr
 1,000 MMBtu/MMscf

Fuel Use:
 1.00E-02 MMscf/hr
 15 gr/100 ft³ sulfur weight content
 91,500 Btu/gal

Criteria Air Pollutants	Emission Factor lb/MMscf	Emissions		BRC Threshold		Below Threshold?	Modeling Threshold 2002 Guidance
		lb/hr	T/yr	4	T/yr		
NO _x	170	1.70E+00	1.77E+00	4	T/yr	Yes	1 T/yr
CO	84	8.40E-01	8.74E-01	10	T/yr	Yes	14 lb/hr
PM _{2.5} /PM ₁₀	7.6	7.60E-02	7.90E-02	1	T/yr	Yes	0.2 lb/hr
SO _x	0.6	6.00E-03	6.24E-03	4	T/yr	Yes	0.2 lb/hr
VOC	5.5	5.50E-02	5.72E-02	4	T/yr	Yes	40 T/yr
Lead	0.0005	5.00E-06	5.20E-06	0.06	T/yr	Yes	0.6 T/yr
			3.72E-03				10 lb/mo

Hazardous Air Pollutants (HAP) and Toxic Air Pollutants (TAP)	lb/MMscf	lb/hr	T/yr	EL (lb/hr)	Modeling Threshold	Below Threshold?
Organic HAP PAH						
2-Methylnaphthalene	2.40E-05	5.70E-08	2.50E-07	9.10E-05	Yes	
3-Methylchloranthrene	1.80E-06	4.27E-09	1.87E-08	2.50E-06	Yes	
Acenaphthene	1.80E-06	4.27E-09	1.87E-08	9.10E-05	Yes	
Acenaphthylene	1.80E-06	4.27E-09	1.87E-08	9.10E-05	Yes	
Anthracene	2.40E-06	5.70E-09	2.50E-08	9.10E-05	Yes	
Benzo(a)anthracene	1.80E-06	4.27E-09	1.87E-08	9.10E-05	See POM	
Benzo(a)pyrene	1.20E-06	2.85E-09	1.25E-08	2.00E-06	See POM	
Benzo(b)fluoranthene	1.80E-06	4.27E-09	1.87E-08		See POM	
Benzo(g,h,i)perylene	1.20E-06	2.85E-09	1.25E-08	9.10E-05	Yes	
Benzo(k)fluoranthene	1.80E-06	4.27E-09	1.87E-08		See POM	
Chrysene	1.80E-06	4.27E-09	1.87E-08		See POM	
Dibenz(a,h)anthracene	1.20E-06	2.85E-09	1.25E-08		See POM	
7,12-Dimethylbenz(a)anthracene	1.60E-05	1.60E-07	1.66E-07			
Fluoranthene	3.00E-06	7.12E-09	3.12E-08	9.10E-05	Yes	
Fluorene	2.80E-06	6.65E-09	2.91E-08	9.10E-05	Yes	
Indeno(1,2,3-cd)pyrene	1.80E-06	4.27E-09	1.87E-08		See POM	
Naphthalene	6.10E-04	1.45E-06	6.34E-06	3.33	Yes	
Phenanthrene	1.70E-05	4.04E-08	1.77E-07	9.10E-05	Yes	
Pyrene	5.00E-06	1.19E-08	5.20E-08	9.10E-05	Yes	
Polycyclic Organic Matter (POM, 7-PAH Group)		2.71E-08	1.19E-07	2.00E-06	Yes	
Organic HAP Non-PAH						
Benzene	2.10E-03	4.99E-06	2.18E-05	8.00E-04	Yes	
Dichlorobenzene	1.20E-03	2.85E-06	1.25E-05	9.10E-05	Yes	
Ethyl benzene		0.00E+00	0.00E+00	2.90E+01	Yes	
Formaldehyde	7.50E-02	1.78E-04	7.80E-04	5.10E-04	Yes	
n-Hexane	1.80E+00	1.80E-02	1.87E-02	12	Yes	
Methyl Chloroform		0.00E+00	0.00E+00	127	Yes	
Styrene		0.00E+00	0.00E+00	6.67	Yes	
Toluene	3.40E-03	3.40E-05	3.54E-05	25	Yes	
Xylene		0.00E+00	0.00E+00	29	Yes	
Organic Non-HAP						
Butane	2.10E+00	2.10E-02	2.18E-02			
Ethane	3.10E+00	3.10E-02	3.22E-02			
OCDD (TEQ=0.0003)		0.00E+00	0.00E+00	1.50E-10	Yes	
Pentane	2.60E+00	2.60E-02	2.70E-02	118	Yes	
Propane	1.60E+00	1.60E-02	1.66E-02			
Metal HAP						
Arsenic	2.00E-04	4.75E-07	2.08E-06	1.50E-05	Yes	
Beryllium	1.20E-05	2.85E-08	1.25E-07	2.80E-05	Yes	
Cadmium	1.10E-03	2.61E-06	1.14E-05	3.70E-06	Yes	
Chromium	1.40E-03	1.40E-05	1.46E-05	0.033	Yes	
Cobalt	8.40E-05	8.40E-07	8.74E-07	0.0033	Yes	
Copper	8.50E-04	8.50E-06	8.84E-06	0.013	Yes	
Manganese	3.80E-04	3.80E-06	3.95E-06	0.067	Yes	
Mercury	2.60E-04	2.60E-06	2.70E-06	0.003	Yes	
Nickel	2.10E-03	4.99E-06	2.18E-05	2.70E-05	Yes	
Vanadium	2.30E-03	2.30E-05	2.39E-05	0.003	Yes	
Metal Non-HAP						
Barium	4.40E-03	4.40E-05	4.58E-05	0.033	Yes	
Molybdenum	1.10E-03	1.10E-05	1.14E-05	0.333	Yes	
Inorganic HAP						
Selenium	2.40E-05	2.40E-07	2.50E-07	0.013	Yes	
Inorganic non-HAP						
Zinc	2.90E-02	2.90E-04	3.02E-04	0.667	Yes	

NOTE: TAP emissions are based on 24-hour averages unless shown in bold, which are based on annual averages.

General PTC Emission Inventories for Automotive Coating Operations
spray booth heater emissions for oil combustion, AP-42 Section 1.3

(5/10)

Heat Input Capacity:
 0.00 MMBtu/hr

Operating Assumptions:
 24 hr/day
 2,080 hr/yr

Fuel Use:
 0.00 gal/hr
 0.50% sulfur weight content
 137,030 Btu/gal

Criteria Air Pollutants	Emission Factor	Emissions		BRC Threshold	Below Threshold?
		lb/gal	lb/hr	T/yr	
NO _x	0.02	0.00E+00	0.00E+00	4	T/yr Yes
CO	0.005	0.00E+00	0.00E+00	10	T/yr Yes
PM _{2.5} /PM ₁₀	0.0033	0.00E+00	0.00E+00	1	T/yr Yes
SO _x	0.00071	0.00E+00	0.00E+00	4	T/yr Yes
VOC	0.002493	0.00E+00	0.00E+00	4	T/yr Yes
Lead	1.51E-06	0.00E+00		0.06	T/yr Yes
			lb/mo		
			0.00E+00		

Hazardous Air Pollutants (HAP) and Toxic Air Pollutants (TAP)	Emissions	Modeling Threshold	EL (lb/hr)	Below Threshold?
Organic HAP PAH				
2-Methylnaphthalene		0.00E+00	0.00E+00	9.10E-05 Yes
3-Methylchloranthrene		0.00E+00	0.00E+00	2.50E-06 Yes
Acenaphthene	2.11E-08	0.00E+00	0.00E+00	9.10E-05 Yes
Acenaphthylene	2.53E-10	0.00E+00	0.00E+00	9.10E-05 Yes
Anthracene	1.22E-09	0.00E+00	0.00E+00	9.10E-05 Yes
Benz(a)anthracene	4.01E-09	0.00E+00	0.00E+00	9.10E-05 See POM
Benz(a)pyrene		0.00E+00	0.00E+00	2.00E-06 See POM
Benz(b)fluoranthene	7.40E-10	0.00E+00	0.00E+00	See POM
Benz(g,h,i)perylene	2.26E-09	0.00E+00	0.00E+00	9.10E-05 Yes
Benz(k)fluoranthene	7.40E-10	0.00E+00	0.00E+00	See POM
Chrysene	2.38E-09	0.00E+00	0.00E+00	See POM
Dibenz(a,h)anthracene	1.67E-09	0.00E+00	0.00E+00	See POM
7,12-Dimethylbenz(a)anthracene		0.00E+00	0.00E+00	See POM
Fluoranthene	4.84E-09	0.00E+00	0.00E+00	9.10E-05 Yes
Fluorene	4.47E-09	0.00E+00	0.00E+00	9.10E-05 Yes
Indeno(1,2,3-cd)pyrene	2.14E-09	0.00E+00	0.00E+00	See POM
Naphthalene	1.13E-06	0.00E+00	0.00E+00	3.33 Yes
Phenanthrene	1.05E-08	0.00E+00	0.00E+00	9.10E-05 Yes
Pyrene	4.25E-09	0.00E+00	0.00E+00	9.10E-05 Yes
Polycyclic Organic Matter (POM, 7-PAH Group)	3.30E-06	0.00E+00	0.00E+00	2.00E-06 Yes
Organic HAP Non-PAH				
Benzene	2.14E-07	0.00E+00	0.00E+00	8.00E-04 Yes
Dichlorobenzene		0.00E+00	0.00E+00	9.10E-05 Yes
Ethyl benzene	6.36E-08	0.00E+00	0.00E+00	2.90E+01 Yes
Formaldehyde	3.30E-05	0.00E+00	0.00E+00	5.10E-04 Yes
n-Hexane		0.00E+00	0.00E+00	12 Yes
Methyl Chloroform	2.36E-07	0.00E+00	0.00E+00	127 Yes
Styrene		0.00E+00	0.00E+00	6.67 Yes
Toluene	6.20E-06	0.00E+00	0.00E+00	25 Yes
Xylene	1.09E-07	0.00E+00	0.00E+00	29 Yes
Organic Non-HAP				
Butane		0.00E+00	0.00E+00	
Ethane		0.00E+00	0.00E+00	
OCDD (TEQ=0.0003)	9.30E-16	0.00E+00	0.00E+00	1.50E-10 Yes
Pentane		0.00E+00	0.00E+00	118 Yes
Propane		0.00E+00	0.00E+00	
Metal HAP				
Arsenic	5.48E-07	0.00E+00	0.00E+00	1.50E-06 Yes
Beryllium	4.11E-07	0.00E+00	0.00E+00	2.80E-05 Yes
Cadmium	4.11E-07	0.00E+00	0.00E+00	3.70E-06 Yes
Chromium	4.11E-07	0.00E+00	0.00E+00	0.033 Yes
Cobalt	4.11E-07	0.00E+00	0.00E+00	0.0033 Yes
Copper	8.22E-07	0.00E+00	0.00E+00	0.013 Yes
Manganese	8.22E-07	0.00E+00	0.00E+00	0.067 Yes
Mercury	4.11E-07	0.00E+00	0.00E+00	0.003 Yes
Nickel	4.11E-07	0.00E+00	0.00E+00	2.70E-05 Yes
Vanadium		0.00E+00	0.00E+00	0.003 Yes
Metal Non-HAP				
Barium		0.00E+00	0.00E+00	0.033 Yes
Molybdenum		0.00E+00	0.00E+00	0.333 Yes
Inorganic HAP				
Selenium	2.06E-06	0.00E+00	0.00E+00	0.013 Yes
Inorganic non-HAP				
Zinc	5.48E-07	0.00E+00	0.00E+00	0.667 Yes

NOTE: TAP emissions are based on 24-hour averages unless shown in bold, which are based on annual averages.